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CERTIFICATE OF MAILING

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Tanya Parker

(Typed or Printed Name of Person Mailing Paper or Fee)

(Signature of Person Mailing Paper or Fee)

Attorney Docket No.: SUN-P7075-SPL

## **INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §1.97**

Inventor:

G. William Walster, et al.

Title:

METHOD AND APPARATUS FOR SOLVING SYSTEMS OF NONLINEAR

**EQUATIONS USING INTERVAL ARITHMETIC** 

Filing Date:

January 8, 2002

Serial Number: Group Art Unit: 10/042,908

2121

Examiner:

Mary Benton

Listed below or on an attached Form PTO-1449 is information known to applicant(s) and submitted pursuant to 37 C.F.R. §1.56. A copy of each listed publication and U.S. and foreign patent, except for pending U.S. applications, is being submitted herewith, along with a concise explanation of information in a foreign language, if any, pursuant to 37 C.F.R. §1.97-1.98.

Applicants respectfully request that the listed information be considered by the Examiner and be made of record in the above-identified application. If form PTO-1449 is enclosed, the Examiner is requested to initial and return it in accordance with MPEP §609.

This statement is not intended to represent that a search has been made or that the information cited in the statement is, or is considered to be, material to patentability as defined in §1.56.

- X This statement qualifies under 37 C.F.R. §1.97, subsection (b) because (check all that apply):
  - (1) It is being filed within 3 months of the application filing date
  - \_\_ (2) It is being filed within 3 months of entry of a national stage -- OR --
  - X (3) It is being filed before the mail date of the first Office Action on the merits.

_	37 C.F.R. §1.97(c). If this statement is being filed after the latest of: (1) three months beyond to filing date of a national application; (2) three months beyond the date of entry of the national stage set forth in §1.491 in an international application; or (3) the mailing date of a first Office action on to merits, but before the mailing date of the earlier of a final office action under §1.113 or a notice allowance under §1.311, then:			
	_	a certification as specified in §1.97(e) is provided below; or		
	_	a fee of \$240.00 as set forth in \$1.17(p) is authorized below, enclosed, or included with the payment of other papers filed together with this statement. Please note that a check in the amount of \$240.00 is enclosed in payment.		
	37 C.F.R. §1.97(d). If this statement is being filed after the mailing date of the earlier of a final office action under §1.113 or a notice of allowance under §1.311, but before payment of the issue fee, the			
	A.	a certification as specified in §1.97(e) is completed below; and		
	B.	a petition under 37 C.F.R. §1.97(d) requesting consideration of this statement is submitted herewith; and		
	C.	a fee of \$130.00 as set forth in §1.17(i)(1) is authorized below, enclosed, or included with the payment of other papers filed together with this statement.		
_	patent of filing of information after m statements	tatement under 37 C.F.R. §1.97(e) - I hereby certify that either: each item of information ontained in the information disclosure statement was cited in a communication from a foreign tent office in a counterpart foreign patent application not more than three months prior to a ling of the information disclosure statement; or no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in the counterpart foreign patent application, and, to the knowledge of the person signing the statement was known to any individual designated in section 1.56(c) more than three months of the filing of the information disclosure statement.		
	Signatu	are:		
		A. Richard Park (Reg. No. 41,241)  Date		
		Respectfully submitted.		

A. Richard Park Reg. No. 41,241

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Date: June 10, 2004



SHEET 1 OF 1

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INFOF	RMATION DISCLOSURE	ATTY. DOCKET NO. SUN-P7075	APPLICATION NO. 10/042,908	
	CITATION	APPLICANT G. William Walster, et al.		
	PTO-1449	FILING DATE January 8, 2002	GROUP ART UNIT 2121	
	OTHER DOCUMENTS (Including Au	thor, Title, Date, Pertinent P	ages, Etc.)	
	E.R. Hansen, "Global Optimization Using Interval Analysis," Marcel Dekker, Inc., New York, NY, 1992.			
	R.B. Kearfott, "A Fortran 90 Environment for Research and Prototyping of Enclosure Algorithms for Nonlinear Equations and Global Optimization," ACM Transactions on Mathematical Software, Volume 21, No. 1, March 1995, pgs. 63-78 http://interval.louisiana.edu/preprints.html.  R. B. Kearfott, "Algorithm 763: Interval Arithmetic: A Fortran 90 Module for an Interval Data Type, ACM Trans. Math. Software, 22, volume 4, 1996, pgs. 385-392. http://interval.louisiana.edu/preprints.html  R. B. Kearfott and M. Novoa III, "Algorithm 681: INTBIS, A portable interval Newton/bisection package", ACM Trans. Math Software, Volume 16, No. 2, pgs. 152-147. http://www.netlib.org/toms/681.			
	R. B. Kearfott, M. Dawande, K.S. Du, and C. Hu, "Algorithm 737: INTLIB: A Portable Fortran 737 Interval Standard Function Library," ACM Trans. Math. Software, 20, volume 4, December 1994, pgs. 447-458.			
	<ul> <li>R. B. Kearfott and G.W. Walster, "On Stopping Criteria in Verified Nonlinear Systems or Optimization Algorithms," ACM Trans. Math. Software, 26, volume 3, September 2000, pp. 323-351. The publication itself says "Received: July 1999; revised: March 2000; accepted: March 2000. http://interval.louisiana.edu/preprints.html.</li> <li>R.E. Moore and S.T. Jones "Safe Starting Regions for Iterative Methods", SIAM Journal on Numerical Analysis, Vol. 14, No. 6 (Dec. 1977), pgs 1051-1065.</li> <li>A. Neumaier, "The Enclosure of Solutions of Parameter-Dependent Systems of Equations," Cambridge University Press, Cambridge, 1990, ISBN: 0-12-505630-3, Reliability in Computing pgs 269-286.</li> <li>S.M. Rump, "Verification Methods for Dense and Sparse Systems of Equations," in Topics in Validated Computations: Proceedings of the IMACS-GAMM International Workshop on Validated Computations, University of Oldenburg, J. Herzberger, ed., Elsevier Studies in Computational Mathematics, Elsevier, 1994, pp. 63-136.</li> </ul>			
EXAMINER		DATE CONSIDERED		
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance <u>and</u> not considered. Include copy of this form with next communication to applicant.